

Joint Logistics Planning Enhancements Bulletin

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JLOG/PE JT&E Background

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In studying the issues and problems faced by the Combatant Commanders in terms of logistics, there has been a consistent, demonstrated need for improvements in the joint logistics sustainment planning and management processes. The lessons learned from these studies define a requirement for timely and accurate logistics information, yet the needed current Joint Tactics, Techniques, and Procedures (JTTPs) are at times, inadequate to satisfy the requirements. Often joint force logistics operations are carried out with nondoctrinal procedures, borne of individual experiences and expertise or driven by the evolving circumstances of specific operations. The result is a lack of necessary formal documentation and analysis to prove their validity or potential for global application to the joint logistics planning process.

Based on these observed problems, the following overarching problem statement for the Joint Logistics Planning Enhancements (JLOG/PE) Joint Test and Evaluation (JT&E) was developed: "Existing information and management processes constrain the Joint Force Commander (JFC) from reliably assessing the sustainment of in-theater forces."

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The Joint Logistics Planning Enhancements Bulletin is published by the Joint Logistics Planning Enhancements (JLOG/PE) Test Program Office. The purpose of this publication is to provide information on the status of the program, identify critical milestones, and report progress and upcoming events. The JLOG/PE Test Program Office appreciates the support provided by many organizations and welcomes comments and suggestions on the program as we move forward.

JLOG/PE Events Schedule

May

- POL Conference, Kaneohe, Hawaii
- Joint Warfighter Advisory Group, APG, Maryland
- JLOG/PE SME Conference, Ft. Belvoir, Virginia
- Product Transition, EUCOM, Stuttgart, Germany

June

- AUSA Logistics Symposium, Washington, DC
- DESC EA Consolidated Steering Group and Information Management Integrated Process Team Conferences, Ft Belvoir, Virginia
- TRANSCOM Visit, Scott Air Force Base, Illinois
- Army T&E Days, Huntsville, Alabama
- CENTCOM, SOUTHCOM, SOCOM Trip
- Terminal Fury 06 MPC, Camp Smith, Hawaii

JLOG/PE JT&E Background

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Recent operations, such as Operation Iraqi Freedom, as well as joint exercises, have demonstrated the need for improvements in both the exchange of logistics information between the Service components and the JFC, and improvements in the joint logistics planning and management processes to aid the JFC J4. Taken together these define a requirement for more timely and accurate logistics information and information utilization processes.

The JLOG/PE charter states:

“The JLOG/PE Joint Test and Evaluation Director (JTD) is chartered to employ multi-Service and other Department of Defense agency support, personnel, and equipment to identify and develop enhancements to joint logistic and operational planning, and execution processes to increase the Joint Force Commander's (JFC) ability to assess sustainability of in-theater forces. The JT&E addresses two critical joint issues: to what extent can logistics information enhancements improve the JFC's ability to assess sustainability of in-theater forces; and to what extent can logistics process enhancements improve the JFC's ability to assess the sustainment of in-theater forces. JLOG/PE will provide information and process enhancements to increase the accuracy, reliability, and timeliness of logistics information available for Joint & Service logistics planners.”

JLOG/PE JT&E will test and evaluate improvements in the joint logistics sustainment planning and management process. JLOG/PE JT&E will identify and develop enhancements to joint logistics operational planning and management processes that include:

- Flow of logistics information
- Assess logistics status
- Coordinate logistics operations
- Identify logistics requirements
- Forecast logistics status
- Prepare staff products

The ability to rapidly collect information and process it into meaningful knowledge is a core requirement for the JFC. Information superiority is a key tenet of Joint Vision 2020. A principal component of success is that “the joint force must be able to take advantage of superior information converted to superior knowledge to achieve ‘decision superiority’— better decisions arrived at and implemented faster than an opponent can react.”

The following table provides information on JLOG/PE recommended products and enhancements. The table identifies the shortfall the product is meant to address and provides a short description of each product.

More complete descriptions of selected JLOG/PE enhancements can be found on pages 5-7.

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| Shortfall | Test Product | Test Product Description |
|--|--|---|
| Training | Joint Logistics Training Package (Munitions Module) | The Joint Logistics Training Package (Munitions Module) developed by JLOG/PE JT&E is a self-paced educational package focusing on J4 munitions staff officers responsible for managing joint theater level munitions operations. The package provides training for newly assigned active duty personnel or temporarily assigned active duty or reserve personnel to assist them in learning their duties and responsibilities. The Training Package will eventually consist of five modules: a basic introduction to joint command structures, command responsibilities, and joint operations and logistics; an overview of the Regional Combatant Command's (RCC) organization, area of responsibility, and missions; roles, functions, responsibilities and organization of the J-4's Logistics Operations Center; joint fuels management; joint munitions management. |
| Use of the Joint Staff Munitions Report (JS MUREP) | Methodology for using the JS-MUREP in an exercise environment Tactics, Techniques, and Procedures (TTPs) for Munitions Action Officer (AO) use of the JS MUREP in obtaining munitions-related situational awareness information and assessing munitions status in the Theater | The JS MUREP is not used extensively during training exercises. Difficulties involved in translating computer simulation output and obtaining trained personnel to man the white cell for data input make it difficult to effectively use the JS MUREP during exercises. In other test events, JLOG/PE measured the value added in using the JS MUREP in an exercise environment and developed an overall methodology for consistently using the JS MUREP system during exercises that will become a logical extension toward using this system during real-world operations. TTP to improve AO use of the JS MUREP and the information in it were developed and included in the Munitions Module of the Training Package Product described previously. JLOG/PE will include these TTP in applicable Doctrinal, Organizational, Training, Materiel, Leadership, Personnel and Facilities (DOTMLPF) Change Packages developed and submitted as a Test Product. |
| Maintaining Situational Awareness within the Logistics Operations Center (LOC) and amount of time spent preparing and presenting briefings | Rolling Brief Capability | JLOG/PE observations identified that using an automated system such as a rolling brief that scrolls through critical logistics items would greatly enhance LOC AOs abilities to maintain and provide situational awareness. An accurate tool providing critical logistics information to the staff will reduce the amount of time AOs spend preparing and presenting briefings, thus allowing them to focus on other management tasks such as conducting assessments and evaluating plans and courses of action. |
| Manual Bulk Petroleum Contingency Report (REPOL) system | Web-based REPOL Program | In cooperation with the Joint Staff J4 and Defense Energy Support Center (DESC), JLOG/PE is funding development of a Web-based REPOL system. Combatant Command Joint Petroleum Officers are involved in identifying requirements and conducting periodic user reviews of the developmental product. When fielded, the Web-based REPOL will replace the manual REPOL form and provide near-realtime petroleum operational data for situational awareness and distribution management. |
| AO use of National Level Ammunition Capability (NLAC) and enhancing NLAC Capabilities | Incorporating a predictive analysis tool in NLAC Creation of a NLAC training version to support joint training exercises | A predictive analysis tool in NLAC would allow the Munitions Manager to be more proactive and anticipatory in his/her management of theater munitions. The tool would use valid NLAC data and provide more analytical rigor. Use of a training version of NLAC will allow munitions officers to train and use the information and decision support tools of NLAC during joint training exercises in the same manner as they would in a real world contingency. |

General Officer Steering Committee

The JLOG/PE Program JT&E held its General Officer Steering Committee (GOSC) meeting on March 2, 2005. The meeting was graciously hosted by the Defense Logistics Agency (DLA) at its campus on Fort Belvoir, Virginia. Seventeen Senior Logistics Executives representing the Services, Combatant Commands (COCOMS), Agencies, and Department of Defense (DOD) were given an update of JLOG/PE's progress and a demonstration of the program's developed enhancement products.

The purpose of the GOSC is to provide senior-level advice and guidance on JLOG/PE issues pertaining to policy, advice relative to the availability of resources and coordination requirements, review of JT&E-produced concepts and products, and changes to the Doctrine, Organization, Training, Materiel, Leadership, Personnel and Facilities (DOTMLPF) process. The focus of JLOG/PE is to identify ways of collecting, disseminating, and using timely, accurate, and complete information that enables improved business processes between the Services and the Joint Force J-4 during sustainment operations. Ultimately, JLOG/PE will work with the Joint Staff and Unified Commands to transform the outputs from the JT&E into "best in class" enhancements that, in turn, become reliable and useful legacy products.

The JT&E Program purpose is not to develop hardware, but to take existing capabilities and improve upon them for the joint community. JT&E seeks to form a stronger relationship with US Joint Forces Command (USJFCOM) to assess the combatant commanders' depth of resources and facilitate the delivery and utilization of joint products. The hardest parts of a JT&E are the ownership, final residence, and maintenance of the product/capability that has been developed. Mr. Mike Crisp (DOD JT&E) emphasized the importance of acceptance and utilization of legacy products universally by the warfighter.

COL Edward Fisher, JLOG/PE Test Director, provided an updated overview of the JLOG/PE program to the attendees. He emphasized that JLOG/PE takes a mission-based approach to assess the sustainment of in-theater forces, specifically by defining the mission, task, capability, shortfall, and solution. Test products for JLOG/PE include: Web-based Bulk Petroleum Contingency Report (REPOL), National Level Ammunition Capability (NLAC) Decision Support Tool (DST), Rolling Brief, and Training Package for Fuels and Munitions. These products will be fully tested during US Pacific Command (USPACOM) Terminal Fury 06 and then fielded to the Combatant Commands. GOSC attendees were extremely interested in the test product demonstrations and anxious to obtain copies for their organizations. COL Fisher informed the GOSC attendees that as products are fielded, ownership of the enhancement is critical to the lasting success of JLOG/PE. Issues identified during the GOSC will be addressed as part of the Joint Warfighter Advisory Group (JWAG) meeting scheduled in May.

Reception, Staging, Onward Movement, and Integration

JLOG/PE team members consisting of 13 personnel deployed to Seoul, South Korea, to participate in the US Forces Korea (USFK) Reception, Staging, Onward Movement, and Integration (RSO&I) 2005 exercise in March 2005.

The intent of JLOG/PE's involvement in the exercise was to conduct product transitions, introduce and demonstrate future enhancements, and map the processes for munitions and fuels. The team also provided assistance to the USFK J4

staff in preparing for the introduction of enhancements during Ulchi Focus Lens 2005. The JLOG/PE effort was concentrated at two primary locations in Taegu: Camp Walker and Camp Henry, 19th Theater Support Command; and one secondary location at Osan AFB. In addition to the internal JLOG/PE mission during RSO&I, part of the team assisted personnel from USJFCOM in assessing logistical processes.

Munitions SME Conference

In coordination with the Joint Staff J4 Munitions Office, JLOG/PE sponsored a Joint Theater Munitions Management Subject Matter Expert (SME) Conference from February 23-24, 2005, at Aberdeen Proving Ground, Maryland. JLOG/PE and the Joint Staff J4 co-chaired the 2-day conference, involving more than 30 personnel from 18 different commands and agencies. Key commands and agencies represented at the conference included the Joint Staff, all the Service Headquarters, US Central Command, US Pacific Command, US European Command, US Joint Forces Command, US Forces Korea, Combined Force Land Component Commander, and the Joint Munitions Command. The conference provided an excellent forum for discussing Service-specific munitions initiatives and joint munitions management issues, and for introducing JLOG/PE products and enhancements to the joint munitions community.

The conference followed a full and aggressive agenda, developed jointly by the co-chairs. Presentations were provided by the Joint Munitions Command, the Naval Operations Support Center, the Office of the Secretary of Defense, and others on a variety of joint munitions management issues. JLOG/PE presentations included an overview and an update of the full JT&E. Follow-on briefings focused on JLOG/PE's joint munitions management-related enhancements, products, and cooperative efforts.

Overall, the JLOG/PE products and the conference were well received by all in attendance. Attendees expressed the desire for a follow-on conference in 6 to 8 months to review the final status of JLOG/PE munitions-related enhancements and to continue discussions on the critical issues raised at the initial conference. JLOG/PE documented the results of the conference in a written report, which was provided to all participants. This report can be made available if requested.

JLOG/PE's ENHANCEMENT PRODUCTS

Joint Staff Munitions Report

In December 2004, JLOG/PE deployed to Camp Smith, Hawaii, to collect data and introduce potential enhancements during PACOM's Tier I Exercise, Terminal Fury 2005 (TF 05). Although the Joint Staff Munitions Report (JS MUREP) is not an enhancement, it will be the first time it will be used in a Tier I Exercise. PACOM used the JS MUREP for munitions reporting and the Joint Theater Level Simulation (JTLS) to provide the simulated munitions expenditures. JLOG/PE provided assistants to PACOM who built the data exercise into the JS MUREP. This process consisted of loading units and munitions by type and quantity into the system. Since there are no automated feeds from JTLS to the JS MUREP, several manual procedures and workarounds were quickly developed by JLOG/PE and the Joint Forces Command to facilitate the use of the JS MUREP system. One of these workarounds was, that JLOG/PE provide personnel to manually input expenditures in the JS MUREP after receiving the daily report from JTLS. JLOG/PE is currently developing a white paper that would outline the use of the JS MUREP in an exercise environment with other simulation systems from results found during TF 05.

Joint Theater Level Simulation

Central to the JLOG/PE test concept is the use of computer modeling and simulation to conduct comparative tests and logistics analysis. As JLOG/PE shifts its focus from conducting tests to in-depth analysis and the delivery of test products, the use of computer modeling and simulation has also shifted to support the ongoing analysis.

As mentioned in previous JLOG/PE bulletins, the Joint Theater Level Simulation (JTLS) model served primarily as a method of reproducing scenarios and conditions for logistics staffs participating in test events. While conducting test events, JLOG/PE gained insight into how JTLS could more accurately model real-world logistics and improve Combatant Commander and Joint Task Force staff training. As a test product, JLOG/PE has funded JTLS improvements to associate fuel consumption with combat systems, vice personnel.

JLOG/PE is in the early stages of assessing whether analysts can use JTLS to model the mission-level effects enhancements. The first step will be for JLOG/PE to map observed improvements in process performance to entities and algorithms in the JTLS model. Next, JLOG/PE will run through a scenario without enhancements to generate operational outcomes as a baseline. Then the analysts will run JTLS again using data from an enhanced environment to generate the next set of operational outcomes. Analysts would then determine whether they measure the operational impact of enhancements based on the data collected.

JLOG/PE is also in the process of analyzing JTLS' sensitivity and stability as the initial step in determining the feasibility of using JTLS as our course of action development. The sensitivity analysis approach JLOG/PE is taking involves changing the random number seeds inserted in model algorithms to plot the distribution of results. If the model proves stable, JLOG/PE intends to publish a white paper on results of this analysis and make recommendations for further analysis of JTLS as a course of action development tool.

During the last JLOG/PE Subject Matter Experts (SME) conference, JLOG/PE analysts and engineers took the opportunity to meet with colleagues from the National Level Ammunition Capability (NLAC). The group discussed how JTLS and the training instance of the NLAC system might exchange data to more accurately model and track ammunition expenditure during command post exercises. JLOG/PE has begun to look at the JTLS and NLAC databases to find common munitions data for translation and exchange between the two systems. Given the time left in this JT&E, JLOG/PE has scaled its effort down to determining feasibility of data exchange and the conduct of a small-scale demo.

Finally, in an effort to conserve remaining test funds, JLOG/PE has looked into methods of fulfilling modeling and simulation requirements without breaking the bank. One method of cutting costs was to avoid purchasing additional Red Hat Linux Enterprise operating system licenses. To fulfill the need to have additional Linux computers running, JLOG/PE integrated the use of the Community Enterprise Operating System (CentOS). CentOS is an open-source and free Linux operating system based on the source code from Red Hat Linux Enterprise. CentOS is what is termed as a "downstream re-release" of public license open-source software. JLOG/PE has run a JTLS server on CentOS for more than a month, finding the operating system every bit as stable (for running JTLS) as Red Hat Linux Enterprise.

Web-Based REPOL

Work on the Web-based Bulk Petroleum Contingency Report (REPOL) continues. Great strides have been made in the development and testing of this application. The Defense Energy Support Center (DESC) and Naval Operational Logistics Support Center (NOLSC) conducted several developmental test events during the months of February and March 2005. Additionally, the Joint Petroleum Office (JPO), PACOM, and JLOG/PE provided support for an operational test during the month of April 2005. Each of these tests was successful in either identifying areas needing improvement or demonstrating that the application was a viable tool. There is still some work remaining to be completed, but there have been steady improvements across the board.

The Web-based REPOL program will replace the manually produced REPOL form currently submitted to the Joint Staff. It will be capable of collecting and maintaining near-realtime petroleum operational data

that would provide a total asset visibility and “end-to-end” petroleum distribution management. The REPOL program will have the capability to track base-level inventories, equipment and facility status, personnel strength, and also identify petroleum shortfalls/limiting factors. The Web-based REPOL is expected to enhance the J4 staff’s capability to receive situational awareness information, prepare and present routine reports and briefings, provide input to missions analysis or logistics estimates, and identify and resolve fuel issues, problems, and shortfalls.

The Web-based REPOL is inching closer and closer to initial operating capability, which is anticipated to be late 3^d or early 4th quarter of FY 05. All those involved in the development and testing are to be commended for their efforts in providing the Joint Staff J4 and the joint petroleum community with a much-needed and long-awaited tool for reporting joint petroleum.

JLOG/PE Organization

Test Director - COL Edward J. Fisher

Test Operations Division - Tests potential enhancements to Joint Logistics information and management processes from Joint Exercises, Global War on Terrorism operations, and dedicated tests in order to improve the Joint Force Commanders’ abilities to assess, plan for, and manage sustainment of in-theater forces.

Test Product & Integration Division - Manages the development of JLOG/PE test products, identifies and coordinates with prospective sponsors for each product, and plans for their transition to the Services, Combatant Commands, and other joint agencies.

Studies and Analysis Division - Analyzes enhancements to Joint Logistics information and management processes through analysis of data from Joint Exercises, Global War on Terrorism Operations, and dedicated tests in order to improve the Joint Force Commanders’ abilities to assess, plan, and manage sustainment of in-theater forces.

Management Division - Conducts sustainment operations to include administrative operations, property accountability, and customer interface.

How to contact us:

Email:

jlog@dtc.army.mil

Mailing Address:

**Joint Logistics Planning Enhancements (CSTE-DTC-TT-J)
US Army Developmental Test Command
314 Longs Corner Road
Aberdeen Proving Ground, MD 21005-5055**

FOR THE COMMANDER:

**C. DAVID BROWN, Ph.D.
Director of Test and Technology**

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